

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/538, 885  
Source: PCT  
Date Processed by STIC: 06/22/2005

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 06/22/2005

PATENT APPLICATION: US/10/538,885

TIME: 10:20:59

Input Set : A:\Sequence Listing US.ST25.txt

Output Set: N:\CRF4\06222005\J538885.raw

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3 <110> APPLICANT: Nessler, Craig
4     Lorence, Argelia
5     Chevone, Boris
6     Mendes, Pedro
8 <120> TITLE OF INVENTION: Manipulation of Ascorbic acid Levels in Plants
10 <130> FILE REFERENCE: 01640421aa
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/538,885
C--> 12 <141> CURRENT FILING DATE: 2005-06-14
12 <150> PRIOR APPLICATION NUMBER: US 60/433,787
13 <151> PRIOR FILING DATE: 2002-12-17
15 <150> PRIOR APPLICATION NUMBER: PCT/US03/27779
16 <151> PRIOR FILING DATE: 2003-09-08
18 <160> NUMBER OF SEQ ID NOS: 4
20 <170> SOFTWARE: PatentIn version 3.2
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 21
24 <212> TYPE: DNA
25 <213> ORGANISM: Artificial
27 <220> FEATURE:
28 <223> OTHER INFORMATION: Synthetic oligonucleotide primer for miox gene (forward)
30 <400> SEQUENCE: 1
31 cccatggcga tctctgttga g                                21
34 <210> SEQ ID NO: 2
35 <211> LENGTH: 21
36 <212> TYPE: DNA
37 <213> ORGANISM: Artificial
39 <220> FEATURE:
40 <223> OTHER INFORMATION: Synthetic oligonucleotide primer for miox gene (reverse)
42 <400> SEQUENCE: 2
43 ccggatcctc accacctcaa g                                21
46 <210> SEQ ID NO: 3
47 <211> LENGTH: 954
48 <212> TYPE: DNA
49 <213> ORGANISM: Arabidopsis thaliana
52 <220> FEATURE:
53 <221> NAME/KEY: Source
54 <222> LOCATION: (1)..(954)
55 <223> OTHER INFORMATION: nucleic acid sequence of A. thaliana miox4 cDNA PCR product
57 <400> SEQUENCE: 3
58 atgacgatct ctgttgagaa gccgattttt gaagaagagg tttctgcatt cgagaagagt      60
60 ggggacaata tcggagagtt gaaattggac ggaggatttt cgatgccgaa aatggacacc      120
62 aatgacgacg aagctttttt ggctcctgag atgaatgcat ttggccgcca attcagggac      180
64 tacgatgttg agagtgagag gcaaaagggc gtcgaagagt tttacagatt acgacacatc      240

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```

66 aaccaaactg tgcactttgt gaaaaagatg agggctgaat atggaaaatt agataaaatg      300
68 gtgatgagca tttgggaatg ttgtgagctt ctcaatgagg ttgtggatga gagtgatcca      360
70 gatcttgacg agccccagat tcagcatttg cttcaatctg ccgaagccat ccgcaaagat      420
72 taccctaata aagattggct tcatctgacc gctcttatcc atgatcttgg gaaagttatt      480
74 actcttccac aattcggagg acttcctcaa tgggctgttg ttggtgacac attccctggt      540
76 ggatgtgcat ttgatgaatc taacgtacat cacaagtact ttgtggaaaaa cccagatttt      600
78 cacaacgaaa cctacaacac taaaaatggg atttactctg aagggtgtgg attaaacaat      660
80 gtcatgatgt cttggggcca tgacgactac atgtacctgg tggctaaaga aaacggaagt      720
82 accttgccgt cggctggaca gtttatcata agataccact ccttttacct tttgcacacg      780
84 gctggagaat acacccatct tatgaacgag gaagacaagg agaatctgaa gtggctacac      840
86 gttttcaaca agtacgactt gtacagtaag agcaaagttc acgttgatgt ggagaaggtc      900
88 gagccttact acatgtctct tatcaagaaa tatttcccg aaacttgag gtgg          954
91 <210> SEQ ID NO: 4
92 <211> LENGTH: 318
93 <212> TYPE: PRT
94 <213> ORGANISM: Arabidopsis thaliana
97 <220> FEATURE:
98 <221> NAME/KEY: Source
99 <222> LOCATION: (1)..(318)
100 <223> OTHER INFORMATION: Amino acid sequence of A. thaliana miox4 cDNA product
102 <400> SEQUENCE: 4
104 Met Thr Ile Ser Val Glu Lys Pro Ile Phe Glu Glu Glu Val Ser Ala
105 1 5 10 15
108 Phe Glu Lys Ser Gly Asp Asn Ile Gly Glu Leu Lys Leu Asp Gly Gly
109 20 25 30
112 Phe Ser Met Pro Lys Met Asp Thr Asn Asp Asp Glu Ala Phe Leu Ala
113 35 40 45
116 Pro Glu Met Asn Ala Phe Gly Arg Gln Phe Arg Asp Tyr Asp Val Glu
117 50 55 60
120 Ser Glu Arg Gln Lys Gly Val Glu Glu Phe Tyr Arg Leu Arg His Ile
121 65 70 75 80
124 Asn Gln Thr Val Asp Phe Val Lys Lys Met Arg Ala Glu Tyr Gly Lys
125 85 90 95
128 Leu Asp Lys Met Val Met Ser Ile Trp Glu Cys Cys Glu Leu Leu Asn
129 100 105 110
132 Glu Val Val Asp Glu Ser Asp Pro Asp Leu Asp Glu Pro Gln Ile Gln
133 115 120 125
136 His Leu Leu Gln Ser Ala Glu Ala Ile Arg Lys Asp Tyr Pro Asn Glu
137 130 135 140
140 Asp Trp Leu His Leu Thr Ala Leu Ile His Asp Leu Gly Lys Val Ile
141 145 150 155 160
144 Thr Leu Pro Gln Phe Gly Gly Leu Pro Gln Trp Ala Val Val Gly Asp
145 165 170 175
148 Thr Phe Pro Val Gly Cys Ala Phe Asp Glu Ser Asn Val His His Lys
149 180 185 190
152 Tyr Phe Val Glu Asn Pro Asp Phe His Asn Glu Thr Tyr Asn Thr Lys
153 195 200 205
156 Asn Gly Ile Tyr Ser Glu Gly Cys Gly Leu Asn Asn Val Met Met Ser
157 210 215 220

```

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```

160 Trp Gly His Asp Asp Tyr Met Tyr Leu Val Ala Lys Glu Asn Gly Ser
161 225                230                235                240
164 Thr Leu Pro Ser Ala Gly Gln Phe Ile Ile Arg Tyr His Ser Phe Tyr
165                245                250                255
168 Pro Leu His Thr Ala Gly Glu Tyr Thr His Leu Met Asn Glu Glu Asp
169                260                265                270
172 Lys Glu Asn Leu Lys Trp Leu His Val Phe Asn Lys Tyr Asp Leu Tyr
173                275                280                285
176 Ser Lys Ser Lys Val His Val Asp Val Glu Lys Val Glu Pro Tyr Tyr
177                290                295                300
180 Met Ser Leu Ile Lys Lys Tyr Phe Pro Glu Asn Leu Arg Trp
181 305                310                315

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/538,885

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Input Set : A:\Sequence Listing US.ST25.txt  
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Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2

**VERIFICATION SUMMARY**

DATE: 06/22/2005

PATENT APPLICATION: US/10/538,885

TIME: 10:21:00

Input Set : A:\Sequence Listing US.ST25.txt

Output Set: N:\CRF4\06222005\J538885.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date